UNITED STATES DEPARTMENT OF THE INTERIOR  GEOLOGICAL SURVEY									
AGE			EUROPEAN STAGES	STRATIGRAPHIC UNITS IN THE NELCHINA AREA (THE SOUTHEASTERN TALKEETNA MOUNTAINS AND SOUTHWESTERN COPPER RIVER BASIN)		LOCATION OF BEST EXPOSURES FOUND TO DATE	THICKNESS  MEASURED OR ESTIMATED  FEET	RANGE AND CORRELATION OF DETAILED STRATION  Solid line represents strata present in each section.  Dashed line represents uncertain correlations or covere  Dotted line represents the range of unconformities.  Location of sections shown on index map, figure 2.	
	QUATERNARY	PLEISTOGENE RECENT	A (100 A)	Recent deposits.  Pleistocene deposits.	Alluvium, terrace gravels, landslide debris and morainic deposits.  Glacial lake clays and silts, deltai and outwash sands and gravels, till.	Thick deposits underlie the	0 te over 500		
1	1	RY		SLIGHT TILTING AND I	PAULTING, PLUVIAL AND GLACIAL EROSION.				
2	7 04	UPPER TERTIA			Dark yellowish-or reddish-brown basaltic flows with some interbedded pyroclastics. Locally the basal bed are composed of tuffs and volcanic sediments.	s and Oshetna River.	2500 feet.		
	J 02 1-1	-3-3			Pebble and cobble conglomerate and yellowish-brown coarse sandstone and	Lower Billy Creek.		SECTION I SECTION 2. Upper half of section on a	
1	기리	FOCENE		sediments.	yellowish-brown coarse sandstone and siltstone with coal fragments.	d Head of Oshetna River.	Min. 2000	north tributary of Squaw Cr. One mile south of Alfred entering 2.0 miles east of Creek on a tributary ent- Caribou Cr. Lower half of ering six miles east of	
			DANIAN AESTRICHTIAN 2 - 2 - ? - ?-	MAJOR OROGENY, FAULTING AND	FOLDING, UPLIFT AND GREAT EROSION.	Above elevations of 4500 to		section on a south tributary Garibou Cr. of Squaw Cr. entering 1.95 miles east of Caribou Cr.	
		Proi	pably Campanian t possibly	Upper shale and siltstone member.	Dark gray shale and silty shale wit thin fine-grained arkosic sandstone layers.	th 5000 feet on a mountain	Min: 1000.		
		Mae	estrichtian.	Upper sandstone and siltstone member.	Olive-gray arkosic sandstone with thick pebble conglomerate, silt-stone and, locally, shale beds. Local large scale penecontemporaneous slump.Pla fragments and limestone concretions occur locally.	between elevations of 4000 and 5000 feet on a mountain which is five miles north of the Sheep Man, and lies between	1500	SECTION 3	
		1.1	CAMPANIAN	Lower shale and	Medium-and dark-gray shale and silt shale with numerous limestone concr tions and a few thin sandstone and	· Cia	6000-7000	One mile south of Squaw	SECTION 7
	S		SANTONIAN	siltstone member.	siltstone layers. Penecontemporaneous slumps, clastic dikes, thin lateral persistent ash layers and fossil we fragments occur locally. Marine invertebrate fossils occur sparsely. The large shells of Inceramus unduatoplicatus are common in, and characteristics.	ous middle Squaw Creek.	0000-1000	Greek on a tributary entering 5.5 miles east of Caribou Creek	On a north tributary of Caribou Creek entering O.3 mile east of Billy Creek.  On ridge crest 3.0 miles
		0 9 9 6	CONTACTAN	Basal sandstone member	Thickbedded greenish-gray and local olive-black fine-grained arkosic sandstone. Marine invertebrate fossils occur in places. Thick shale and siltstone beds occur within the	of elevation on the larger tributaries of Squaw Creek draining the north flanks of Gunsight Ntn. at the north-	Ranges from less than 50 to more than		north of mouth of AlfredCreek.
	1 A		TURONIAN		unit in places.	east end of Sheep Mtn.			
	RE		GENOMANIAN ALBIAN	MAJOR FAULTING, SOME FOLDING	G,UPLIFT AND DEEP EROSION.			SECTION 5	SECTION 6
	U	0	APTIAN BARREMIAN HAUTERIVIAN					SECTION 4  North tributary of the second sec	
		0 0 0	- ? - ? - ?	Sandstone and shale overlying the Nelchina limestone.	Thin-and thickbedded, cross-bedded, olive-gray, fine-grained, quartzose	Limestone Hills north of Limestone Gap. Also 1.2	Ming 175.	Limestone Gap Nelchina River ento	
(		ETA			sandstone, often calcareous; and dark-gray shale which locally bear reworked fossiliferous limestone concretions of Upper Jurassic age.	s Nelchina River on a tribut-	erosion.		
1	7	0 0	VALANGINIAN	Nelchina limestone	Massive, very light gray, wave-ripple fine-grained sandy limestone formed	ed, Limestone Gap and Limestone d Hills. Also two to three	30 feet near Flat Creek.Over		
		X X		Sandstone and conglomerate	from finely comminuted molluscan shells. Emits a fetid oder when stra Massive, fine- and medium-grained.	Limestone Gap.	175 feet near Limestone Gap. 0 to over		
1	1	7		underlying the Nelchina Limestone.	feldspathic and quartzose sandstone with numerous shelly beds and coard channel-type conglomerate.	se	400 feet.		
(		P	BERRIASIAN PRILANDIAN	MINITED TOOLS TO THE TOTAL	Massive gray and dark olive-gray	North of Little Nelchina			
				2 0 -	siltstone and shale with locally abundant limestone concretions.  Moderately fossiliferous.  Medium-bedded to massive dark vell	River on small tributary entering one mile above Flat Creek.	Min. 1100	in the second of	
		0 1 8 8	IMMERIDGIAN	Middle sandstone member	ish-brown, fine-grained quartzose sandstone, locally coquinoid. This siltstone beds occur in places.	mouth. Also 2.0 miles east of Limestone Gap on a tributary to Flat Creek.	250 or more feet thick.		
		CRA		Lower siltstone member.	Aucella very abundant.	en- Little Nelchina River and			
Σ			OXFORDIAN	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	ish-gray siltstone with many limes stone concretions and a few thin arkes sandstone beds. Fossils locally common Coarse conglomerates in extremely lenticular units occur within and the base of the member, and locally exceed 450 feet in thickness.	its tributaries from the south draining the limeston. Hills, especially a small stream entering 0.5 mile at east of the main headwater	Min. 1000, a and possibly 2000 feet.		
		9 P E		MODERATE FOLDING, STRONG UP	LIFT AND EROSION.				
		3	CALLOVIAN	Chinitna formation	Greenish-gray or olive-gray siltst and shale with many limestone conc tions and a few thin beds of fine- grained sandstone.	re-Billy Creek. Also the south-	feet thick, but		
	0 - 8	0		UPLIFT AND EROSION, PROBABLE Sandstone equivalent to the	Thickhedded dark olive-gray fine-	Northwest branch of Little			
	S	10	BATHONIAN	highest part of the Tuxedni formation.	grained sandstone with shelly layer and fossiliferous calcareous sandstone concretions. Also massive, gr	miles west of the main head-	Min. 1200		
	R A	3		UPPER PART OF INTERVAL REPRESE ED IN AN UNCONFORMITY ON CARI	ish-green, very fine-grained sandst with some shelly layers. ENTED IN SUBSURFACE ON HEADWATERS OF BOU CREEK AND NORTH TRIBUTARIES OF	LITTLE NEUCHINA RIVER ENTERE I	NTERVAL -INCLUD- REPRESENT HIATU		
	J. C.	DDLE		Shale, siltstone, and sandstone.	Olive-gray siltstone and interbedde shale, siltstone, and arkode sandsto Gradational with underlying sandston	caribou Creek 0.7 mile one east of Billy Creek. ne Ridge three miles morth of	Over 65 feet thick.		
		MIN		Sandstone equivalent to the lower part of the Tuxedni formation.	Thickbedded, olive-gray, fine-grains arkosic sandstone with limestone concretions and wood fragments. Locally fossiliferous. In places silty towards top.	Ridge three miles morth of mouth of Alfred Creek. Upper part of unit well exposed 1.4 miles north of mouth of Albert Creek.	1100		
+		U	and the second section of the second	MILD FOLDING AND LIMITED EN	Pyroclastics, flows, and tuffaceous	s Sheep Mountain, Albert	Several thou-		
		S A R D	TOARCIAN		sediments, predominantly of marine but in part of fresh-water origin. Volcanid debris becomes less important and marine fossils occur in the upper part of the formation.  RVED. POSSIBLY CONFORMABLE FROM REGION	northtributaries of Alfred Creek.	and feet thick.		
		e P	LEINSBACHI AN	Marine siltstone, claystone,	Thin- to thick-bedded, olive-black, fossiliferous siltstone, claystone	, 1.3 miles from Squaw Creek	eral hundred,		
		3 0 1	SI NEMURI AN	and mudstone.	and sandy mudstone. Wood fragments and shelly beds occur.	east of Caribou Creek.	and possibly a few thousand feet thick.		
			ETTANGIAN	NATURE OF BASAL CONTACT AND THE JURASSIC ROCKS ARE UNDE IN THE NORTHERN CHUGACH MOU SEDIMENTS THOUGHT TO BE PRO	D OF THE UNDERLYING ROCKS NOT KNOWN. ERLAIN BY TRIASSIC LIMESTONE, CHERT, OUNTAINS OCCURE BANDED ARGILLITES AND OBABLY OF CARBONIFEROUS AGE.	ELSEWHERE IN SOUTH-CENTRAL ALA			Stratigraphy and correlation by Arthur Grantz 1952